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09/916,047	07/25/2001	Robert S. Daley	010278	7282

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
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EXAMINER

PHILPOTT, JUSTIN M

ART UNIT

PAPER NUMBER

2665

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/916,047

Applicant(s)

DALEY ET AL.

Examiner

Justin M Philpott

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 4-9, 12-14, 16, 18, 26-28, 30, 34, 37 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation “the access point” in claim 2. There is insufficient antecedent basis for this limitation in the claim. Applicant may overcome this rejection by amending claim 4 to change “the access point is a base station” to either “the second access point is a base station” or “the access points are base stations”, if appropriate.

Claim 5 recites the limitation “the infrastructure” in claim 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 6-9 recite the limitations “the CAPs”, “the first CAP” and/or “the second CAP” in claim 2. There is insufficient antecedent basis for these limitations in these claims. Applicant may overcome this rejection by amending claim 6 to be dependent upon claim 3 and not claim 2.

Claims 12-14 and 16 recite the limitation “the first communication device” in claim 10. There is insufficient antecedent basis for this limitation in these claims. Applicant may overcome this rejection by amending claims 12-14 and 16 to change “the first communication device” to “the communication device”.

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Claim 18 recites the limitation “the first communication device” in claim 17. There is insufficient antecedent basis for this limitation in the claim. Applicant may overcome this rejection by amending claim 18 to change “the first communication device” to “the communication device”.

Claims 26-28 and 30 recite the limitation “the first communication device” in claim 24. There is insufficient antecedent basis for this limitation in the claim. Applicant may overcome this rejection by amending claims 26-28 and 30 to change “the first communication device” to “the communication device”.

Claim 30 recites the term “a predetermined correctness threshold”. It is unclear if this predetermined correctness threshold is the same as that of claim 29 for which claim 30 depends upon, or if this predetermined correctness threshold is a different threshold. It is recommended that Applicant change “a predetermined correctness threshold” to “the predetermined correctness threshold” in claim 30 if, e.g., reference is to be made to the same threshold as that introduced in claim 29. Appropriate correction is required.

Claims 34, 37 and 39 recite the limitation “the infrastructure” in claim 31. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,252,862 to Sauer et al. in view of U.S. Patent Application Publication No. 2002/0093931 by Dalal.

Regarding claims 1, 10 and 31, Sauer teaches a voice over Internet VOIP system (FIG. 5) comprising: plural access points (504, 506) communicating with plural wireless communication devices (mobile units, e.g. 502, 120, see also col. 3, lines 1-15) using a wireless communication device over-the-air protocol different from Internet protocol IP, each wireless communication device (502, 120) transmitting frames of information, at least a first access point (BTS) undertaking selection functionality including handoff control (e.g., see col. 3, lines 3-15 regarding soft handoff). However, Sauer may not clearly specify selection functionality also including frame selection.

Dalal teaches a VOIP system (FIG. 3) wherein an access point (BTS 101) undertakes selection functionality including frame selection (see SDU 310 comprising frame selection unit 311 and contained within BTS 101 as well as paragraphs 0037-0042), wherein a frame selection unit is known to select frames from the highest quality signals for improved transmission (see paragraph 0031). By including frame selection means within an access point, as opposed to solely within a separate interface comprising frame selection such as in prior art FIG. 2, the system of Dalal provides improved frame selection which avoids problems caused by incompatibilities and redundancies among equipment produced by different manufacturers (paragraphs 0036 and 0037). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the teachings of Dalal to the system of Sauer in order to

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provide improved transmission quality by selecting the highest quality frames and to furthermore reduce incompatibility and redundancy between and among the equipment of different vendors.

Regarding claims 2, 11 and 17, Dalal further teaches that the selection functionality is undertaken for at least a first communication device (e.g., MS 112), and at least a second access point (e.g., BS 103) assumes frame selection for the first communication device when a predetermined threshold is reached (i.e., when the signal from BS 101 reaches an unacceptably low/weak level; see paragraph 0029).

Regarding claims 3, 24 and 32, Dalal further teaches the wireless communication device protocol is a CDMA protocol, and access points are correspondingly CDMA access points (e.g., see paragraph 0030 and 0037 and claim 1).

Regarding claims 4 and 33, Sauer teaches the access points are base stations BTS (e.g., BTS 504 and 506).

Regarding claims 5, 34 and 40, Dalal further teaches the access point (BS) comprises a base station controller (BSC) and a base transceiver station (BTS) (e.g., see paragraph 0026) and thus, teaches the base station controller BSC is not external to an access point communicating therewith.

Regarding claim 6, Dalal teaches a selector entity (selection and distribution unit SDU 310) is in communication with the CAPs (101, 102, 103) (see FIG. 3).

Regarding claims 7, 12, 19, 20, 25 and 26, Dalal further teaches the selector entity (SDU 310) receives first communication device (e.g., MS 111, 112, 113 or 114) frames from the first CAP (e.g., BS 101) when a first threshold is reached (e.g., when the signal strength received

from a first CAP 101 exceeds that of other CAPs 102, 103; e.g., see paragraphs 0029 and 0038 regarding handoff), and performing monitoring by SDU 310.

Regarding claims 8, 13, 14, 21, 22, 27 and 28, Dalal further teaches the selector entity (SDU 310) assumes frame selection (via frame selection unit 311) when a second threshold is reached (e.g., when the signal strength received from a second CAP exceeds that of first CAP, or similarly, when the signal strength received from the first CAP is less than that received from other CAPs), the second CAP proposing frame selections for the first communication device (MS) and forwarding the frame selections to the selector entity for monitoring thereby (see paragraph 0044 wherein Dalal specifies that frame selection units are located in all of BS 101-103).

Regarding claims 9, 15, 16, 18, 23, 29 and 30, Dalal teaches the selector entity (SDU 310) determines whether frame selections from a second CAP are within a predetermined correctness threshold (i.e., are within suitable signal strength range) and if so, causing the second CAP to assume frame selections for the first communication device (see paragraphs 0029 and 0038 regarding handoff).

Regarding claims 35, 36, 45 and 46, Sauer teaches the access points (BTS) convert OTA protocol (CDMA) packets to IP packets and vice versa (e.g., see col. 3, lines 31-67).

Regarding claims 37, 38, 42 and 43, Dalal further teaches a first access point (e.g., BS 103) directing (e.g., see paragraph 0029, lines 7-10 regarding signal sent to BS 101) a second access point (e.g., BS 101) in the infrastructure to forward to the first access point (103) reverse-link frames received by the second access point (101) from the wireless communication device (MS) (see paragraph 0029).

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Regarding claims 39, 41 and 44, Dalal teaches the access points (BS) are dynamically established among a plurality of access points (BS) during a call (e.g., see paragraph 0029).

Regarding claims 47-50, Sauer teaches the wireless communication device is assigned a first IP address (see "IP:A1" at BTS 504 in FIG. 5) corresponding to a first access point (BTS-A 504) and a second IP address ("IP:B1") corresponding to a second access point (BTS-B 506) (e.g., see also col. 4, lines 23-55).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,141,559 to Neumiller et al. discloses a method and apparatus for performing selection and distribution in a communication system, and

U.S. Patent Application Publication No. 2001/0055297 by Benveniste discloses measurement-based dynamic packet assignment system and a method for wireless data services.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin M Philpott whose telephone number is 703.305.7357. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D Vu can be reached on 703.308.6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703.872.9314 for regular communications and 703.872.9314 for After Final communications.

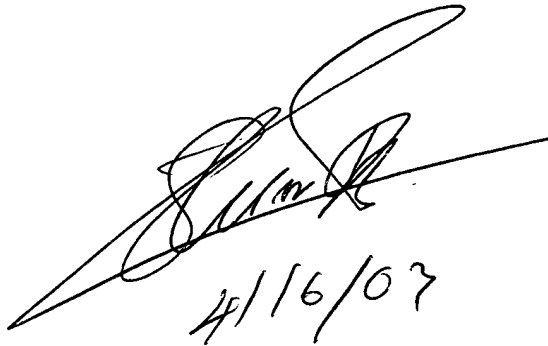
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.305.4750.

Justin M Philpott



April 14, 2003



4/16/03